

## CLAIMS

1. Device for inspecting objects with a substantially spherical surface, such as for example eggs or fruit, comprising  
5 optical observation means for observing the objects, a supporting surface for supporting the objects and a light source for illuminating the objects, characterized in that the device comprises a box with reflective walls which is positioned above the supporting surface and in which the light source and the  
10 observation means are accommodated.
2. Device according to claim 1, in which the supporting surface comprises a conveyor for conveying the objects through the box past the observation means.  
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3. Device according to one of the preceding claims, in which the box is substantially rectangular and has a top wall and four side walls.
- 20 4. Device according to claim 1, in which at least the side walls are designed to be reflective.
5. Device according to one of the preceding claims, in which the reflective walls of the box have a coefficient of reflection  
25 of at least 0.8.
6. Device according to one of the preceding claims, in which the reflective walls are made from metal.
- 30 7. Device according to one of the preceding claims, in which the light source is arranged on the top side of the box.
8. Device according to claim 7, in which the light source has a uniform radiation plane.  
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9. Device according to claim 7 or 8, in which the light source comprises one or more lamps which are distributed substantially uniformly.

10. Device according to claim 8, in which the light source comprises one or more diffuser plates which cover the lamps on the inside of the box.
- 5 11. Device according to claim 10 in so far as the latter is dependent on claim 3, in which the one or more diffuser plates form the top wall of the box.
- 10 12. Device according to claim 1, in which the optical observation means comprise at least one camera.
13. Device according to claim 12, in which the device has at least two cameras which are arranged on opposite sides of the box.
- 15 14. Device according to claim 1, in which the device comprises a computer which is coupled to the optical observation means in order to compare the observations with predetermined reference values for automatic selection of the objects.
- 20 15. Device according to claim 1, in which the reflecting walls of the box are mirrors.